

IN THE CLAIMS

Claims 1-26 (canceled)

27. (Currently amended) A ~~continuously conductive unipolar~~ cannula for anesthesia comprising:

a flexible catheter;

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening in the area of the sharp tip (14) dimensioned for passage of the catheter,

a body part (18) provided at the proximal end of the ~~cannula~~ hollow tube (10), the body part (18) including an inlet opening (32, 34) axially aligned with the ~~cannula~~ hollow tube (10) adapted for guiding the catheter for introduction into the proximal end of the ~~cannula~~ hollow tube (10), and

a connector (22, 24, 26) electrically connected to the ~~cannula~~ hollow tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said ~~cannula~~ hollow tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the hollow ~~cannula~~ tube (10)

wherein the cannula is unipolar.

28. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein an electrical connection is formed between the electrical connector and ~~cannula~~ hollow tube by an electrical contact pressed against the circumference of the ~~cannula~~ hollow tube (10), to which contact a wire (24) of a multi-strand connector (26) is soldered.

29. (Currently amended) A ~~unipolar~~ cannula according to Claim 28, wherein the wire (24) lies axially parallel against the ~~cannula~~ hollow tube (10), and the multi-strand conductor (26) runs radially through the body part (18) towards the outside.

30. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein the proximal end of the ~~cannula~~ hollow tube (10) is provided co-axially in the body part (18), wherein a ring gap is formed between (a) the proximal end of the ~~cannula~~ hollow tube (10) and the thereto connected electrically contacting connector (22, 24) and (b) an inner wall of the body part (18), and wherein said ring gap is filled with plastic (30).

31. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein the inlet opening of the body part (18) decreases in diameter to form an inlet funnel oriented co-axially towards the proximal end of the ~~cannula~~ hollow tube (10).

32. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein the proximal end of the body part (18) is a Luer-lock connection (34).

33. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein the electrically exposed end area (16) of the distal tip (14) of the ~~cannula~~ hollow tube (10) has a length of maximally 1mm.

34. (Currently amended) A ~~continuously conductive unipolar~~ cannula for anesthesia comprising:

a flexible catheter;

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a tip (14) and an exit opening in the area of the tip (14) dimensioned for passage of the catheter,

a body part (18) provided at the proximal end of the ~~cannula~~ hollow tube (10), the body part (18) including an inlet opening (32, 34) axially aligned with the ~~cannula~~ hollow tube (10) adapted for guiding the catheter for introduction into the proximal end of the ~~cannula~~ hollow tube (10), and

a connector (22, 24, 26) electrically connected to the ~~cannula~~ hollow tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said ~~cannula~~ hollow tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the ~~cannula~~ hollow tube (10);

wherein the distal tip (14) of the cannula tube (10) is a facet cut (12)

wherein the cannula is unipolar.

35. (Currently amended) A ~~unipolar~~ cannula according to Claim 34, wherein the facet cut (12) is angled at an angle of approximately 45° to the axis of the ~~cannula~~ hollow tube (10).

36. (Currently amended) A ~~unipolar~~ cannula according to Claim 27, wherein the distal tip (14) of the ~~cannula~~ hollow tube (10) is formed as a closed conically arched tip with an exit opening (44) provided along the side of the ~~cannula~~ hollow tube proximally behind this tip.

37. (Currently amended) A ~~unipolar~~ cannula according to Claim 36, wherein a ramp (46) is formed on the inside of the distal end of the ~~cannula~~ hollow tube (10), adapted to guide a catheter toward the exit opening on the side of the cannula.

38. (Currently amended) A ~~continuously conductive unipolar~~ cannula for anesthesia comprising:

a flexible catheter;

a steel electrically conductive ~~cannula~~ hollow tube (10) including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening (12, 44) in the area of the tip (14) dimensioned for passage of the catheter,

a body part (18) provided at the proximal end of the ~~cannula~~ hollow tube (10), the body part (18) including an inlet opening (32, 34) axially aligned with the ~~cannula~~ hollow tube (10) for guiding a catheter for introduction into the proximal end of the ~~cannula~~ hollow tube (10), and

a connector(22, 24, 26) electrically connected to the ~~cannula~~ hollow tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said ~~cannula~~ hollow tube (10) has an electrically insulated outer covering extending from the body part (18) out to the tip (14) and which leaves about 1mm of the tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the ~~cannula~~ hollow tube (10)

wherein the cannula is unipolar.

39. (Currently amended) A ~~unipolar~~ cannula as in claim 38, wherein said ~~cannula~~ hollow tube tip is a facet cut tip.

40. (Currently amended) A ~~unipolar~~ cannula as in claim 38, wherein said ~~cannula~~ hollow tube tip is a Sprotte tip.

41. (Currently amended) A ~~continuously conductive unipolar~~ cannula for anesthesia consisting of:

a flexible catheter;

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening in the area of the sharp tip (14) dimensioned for passage of the catheter,

a body part (18) provided at the proximal end of the ~~cannula~~ hollow tube (10), the body part (18) including an inlet opening (32, 34) axially aligned with the ~~cannula~~ hollow tube (10)

adapted for guiding the catheter for introduction into the proximal end of the ~~cannula~~ hollow tube (10), and

a connector (22, 24, 26) electrically connected to the ~~cannula~~ hollow tube (10) in the area of the cannula body part (18) for transmission of electro-stimulation,

wherein said ~~cannula~~ hollow tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the ~~cannula~~ hollow tube (10)

wherein the cannula is unipolar.

42. (New) A cannula for anesthesia comprising:

a catheter;

an electrically conductive rigid hollow tube (10) formed by a steel tube including a proximal end and a distal end, the distal end including a sharp tip (14) and an exit opening in the area of the sharp tip (14) dimensioned for passage of the catheter,

a body part (18) provided at the proximal end of the hollow tube (10), the body part (18) including a funnel shaped inlet opening (32, 34) axially aligned with the hollow tube (10) to insert the catheter into the proximal end of the hollow tube (10), and

a connector (22, 24, 26) for transmission of electro stimulation, wherein the connector passes through the body part

U.S. Application No.: 09/438,759  
AMENDMENT F

Attorney Docket: 2368/098

and makes electrical contact with the hollow tube (10) in the area of the body part (18) ,

wherein said hollow tube (10) has an electrically insulated outer covering extending from the body part (18) out to the sharp tip (14) and which leaves the sharp tip (14) exposed at least in its distal end area (16), and

wherein said electrical connector (24, 26) extends through the body part (18) to the outer surface of the hollow tube (10) wherein the cannula is unipolar.